



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,172	04/06/2000	Shinichi Kuroda	1163-268P	9554

7590 06/30/2004

Birch Stewart Kolasch & Birch LLP
P O Box 747
Falls Church, VA 22040-0747

EXAMINER

WONG, ALLEN C

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 06/30/2004

30

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/545,172

Applicant(s)

KURODA ET AL.

Examiner

Allen Wong

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11,20-29,31 and 33-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11,20-29,31 and 33-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 28.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 6, 20, 25, 29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6-11 and 20-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (6,031,575) and Kamikura (6,266,370) in view of Aign et al.

(MPEG-4 Video Transmission via DAB: Error Detection and Error Concealment and "MPEG-4 Video Verification

Model Version 7.0" ISO-IEC/JTC1/SC29/WG11 N1642, April 1997, section 2.1 MPEG-4 Video Coding).

Regarding claim 6, Suzuki discloses an image decoding device which decodes an encoded bit stream formed by encoding images for each object, comprising:

display speed information decoding means for decoding a header information area of the encoded bit stream to restore display speed information, the display speed information being included as a codeword in the header information area for a layer that is above a VOP and comprises a plurality of VOPs, to indicate a number of VOPs displayed per a unit time (col.46, ln.48-53; note Suzuki discloses header information of the displaying timing of a VOP is indicated by a flag called VOP_tem_ref, an indicator for time interval from the displaying time of a previous VOP); and

control means for controlling the reconstruction of said encoded images encoded for each object, based on said object display speed information restored by decoding (note in Fig.7, Suzuki discloses a reconstruction of the images or the combination of image based on the decoded object display speed information, and also, Suzuki's Fig.8B shows the decoder means where VOP decoders 40, 41 and 43 are there for decoding each video object plane that are encoded by the corresponding VOP encoders 32, 33 and 35 in Fig.8A, and that the images decoded by the VOP decoders are combined by element 44 of Fig.8B, element 44 synthesizes the VOP data sets, thus, Suzuki discloses the control means for controlling the reconstruction of images).

Although Suzuki does not specifically disclose the phrase "objects displayed per a unit time", however, it is clear that Suzuki implies that the objects or video object planes (VOP) are displayed per a unit time since Suzuki discloses the displaying timing of a VOP is indicated by a flag called VOP_tem_ref, an indicator for time interval from the displaying time of a previous VOP, as disclosed in col.46, ln.48-53. Therefore, it would have been obvious to one of ordinary skill in the art to recognize and acknowledge that Suzuki does imply the teaching of "objects displayed per a unit time" so as to provide sufficient information in order to encode in an accurate, efficient and cost reducing manner. Doing so would meet with today's highly complex encoding standards and maintain superior image quality.

Although Suzuki does not specifically disclose the term VOL or the phrase "a layer that is above a VOP", it is clear that from a quick perusal of Suzuki's figure 33B, that the "layer that is above a VOP" is a VOL (note at time t5 or t6, the VOPs VOP1-

Art Unit: 2613

VOP4 are displayed and that the grouping of VOPs is considered, as one of ordinary skill in the art knows and recognizes, a VOL or a video object layer). If one is not convinced, then one can peruse Kamikura's col.10, ln.66 to col.7, ln.15 and figure 9, where Kamikura teaches that in the MPEG-4 video encoding standard, it is a standard that a VOL comprises of a collection of video object planes (VOPs). Thus, Kamikura reinforces the well known concepts of MPEG-4 and the disclose of VOL and VOPs. Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Suzuki and Kamikura as a whole for reinforcing the well known concepts of MPEG-4 when decoding image data for viewing high quality images.

Although Suzuki and Kamikura does not specifically disclose wherein for the layer above the VOP layer, the header information area is separate from the data area. However, Aign et al. teach that the layer above the VOP layer, the header information area is separate from the data area (note in section 2.1, in Figure 2-3, the VOL header is separate from the data area VOPs (VOP0, VOP1, ..., VOPn) , and clearly, the VOL header has information that direct the VOPs to act accordingly). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Suzuki, Kamikura and Aign et al., as a whole, for enhancing coding efficiency and providing robustness in error prone environments and content based scalability so as to improve universal access of high quality video image data.

Note claims 7, 20-29, 31 and 33-38 have similar corresponding elements.

Regarding claims 8-11, Suzuki discloses the decoded object display speed is fixed (col.47, ln.10-13) or variable (col.46, ln.67 to col.47, ln.1).

Art Unit: 2613

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

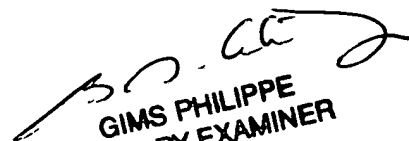
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2613

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen Wong
Examiner
Art Unit 2613

AW
06/24/04


GIMS PHILIPPE
PRIMARY EXAMINER